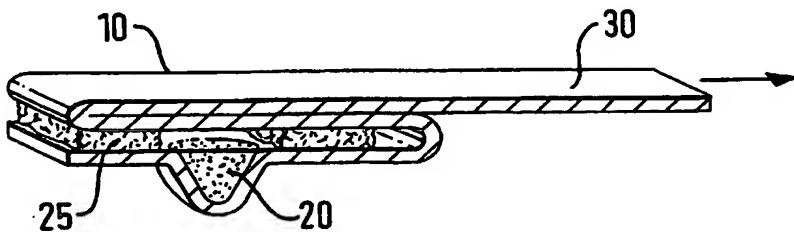




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>B65D 75/20, A61M 15/00, A61K 9/70</b>		A1	(11) International Publication Number: <b>WO 00/64779</b> (43) International Publication Date: 2 November 2000 (02.11.00)
(21) International Application Number: <b>PCT/EP00/03518</b>		(81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 19 April 2000 (19.04.00)			
(30) Priority Data: 9909357.7 24 April 1999 (24.04.99) GB			
(71) Applicant (for all designated States except US): GLAXO GROUP LIMITED [GB/GB]; Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN (GB).			
(72) Inventors; and			
(75) Inventors/Applicants (for US only): <u>BONNEY</u> , Stanley, George [GB/GB]; Glaxo Group Ltd., Park Road, Ware, Herts. SG12 0DP (GB). <u>DAVIES</u> , Michael, Birsha [GB/GB]; Glaxo Group Ltd., Park Road, Ware, Herts. SG12 0DP (GB). <u>GODFREY</u> , James, William [GB/GB]; Glaxo Group Ltd., Park Road, Ware, Herts. SG12 0DP (GB). <u>HAGLUND</u> , Sylvia, Maria [GB/GB]; 19 Northampton Road, Oxford, Oxfordshire OX1 4TG (GB). <u>RAND</u> , Paul, Kenneth [GB/GB]; Glaxo Group Ltd., Park Road, Ware, Herts. SG12 0DP (GB).			
(74) Agent: PIKE; Christopher, Gerard; Pike & Co., Hayes Loft, 68A Hayes Place, Marlow, Buckinghamshire SL7 2BT (GB).			

## (54) Title: MEDICAMENT CARRIER



## (57) Abstract

There is provided a carrier comprising a sheet (10) having a first portion and a second portion; a retainer (20) in said first portion for containment of product; a fold in said second portion such that the second portion is foldable towards said retainer to form a cover therefor; and a join between said cover and the retainer. The carrier is suitable for the containment of a range of different products, particularly medicaments.

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

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## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>PG3694/PCT</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP 00/03518</b>	International filing date (day/month/year) <b>19/04/2000</b>	(Earliest) Priority Date (day/month/year) <b>24/04/1999</b>
Applicant <b>GLAXO GROUP LIMITED et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of XX <sup>6</sup> sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2.  Certain claims were found unsearchable (See Box I).

3.  Unity of invention is lacking (see Box II).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

1a

None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP 00/03518

Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

References in parentheses have to be added as follows:

- line 1: ... comprising a sheet (10)...
- line 2: ... a retainer (20)...

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 00/03518

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:  
**Claims 30-39 have not been taken into consideration for the purpose of this International application (Rule 91.1.c PCT: Not rectifiable omissions)**

2.  Claims Nos.: **84-85**  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
**Rule 6.2(a) (PCT) - References to other parts of the international application**
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 84-85

Rule 6.2(a) (PCT) – References to other parts of the international application

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/03518

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 B65D75/20 A61M15/00 A61K9/70

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B65D A61M A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 590 645 A (DAVIES MICHAEL BIRSHA ET AL) 7 January 1997 (1997-01-07)  abstract; claims ---	1-4,6, 15-30, 40-83
A	US 3 698 549 A (GLASSMAN JACOB A) 17 October 1972 (1972-10-17)  claims; figures ---	1,6-8, 15-19, 29,34, 40-83
A	EP 0 101 298 A (JOHNSON & JOHNSON PROD INC) 22 February 1984 (1984-02-22)  claims; figures ---	1,6-9, 15-19, 21-23, 29,40-83

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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\*&\* document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

4 August 2000

25.00

Name and mailing address of the ISA

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Authorized officer

SERRANO GALARRAGA, J

## INTERNATIONAL SEARCH REPORT

International Application No

EP 00/03518

## C(continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2 968 396 A (PRATT) 17 January 1961 (1961-01-17)  claims; figures ----	1-3, 6-9, 15-19, 21-23, 29, 40-83
A	WO 88 10219 A (MOELNLYCKE AB) 29 December 1988 (1988-12-29)  claims; figures ----	1, 15-19, 21-23, 29, 40-83
A	FR 850 597 A (PAD-Y-WAX COMPANY) 20 December 1939 (1939-12-20)  claims; figures ----	1, 15-18, 21-23, 29, 40-83

**PCT**

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty

For receiving Office use only

**PCT/EP 00/03518**

International Application No

International Filing Date  
**19 APR 2000 (19.04.00)**EUROPEAN PATENT OFFICE  
PCT INTERNATIONAL APPLICATION  
Name of receiving Office and "PCT Interna ication"Applicant's or agent's file reference  
(if desired) (12 characters maximum) **PG3694/ PCT****Box No. I TITLE OF INVENTION****Medicament Carrier****Box No. II APPLICANT**

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

Glaxo Group Limited  
Glaxo Wellcome House  
Berkeley Avenue  
Greenford, Middlesex  
UB6 0NN  
GB

 This person is also inventor.

Telephone No. 0171 493 4060

Facsimile No. 0181 966 8838

Teleprinter No. 25456

State (i.e. country) of nationality:

GB

State (i.e. country) of residence:

GB

This person is applicant  all designated  all designated States except  the United States of America only  the States indicated in the Supplemental Box for the purposes of:

**Box No. III FURTHER APPLICANTS AND/OR (FURTHER) INVENTORS**

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

BONNEY, Stanley George  
Glaxo Group Ltd.  
Park Road  
Ware, Herts.  
SG12 0DP  
GB

This person is:

 applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)

State (i.e. country) of nationality:

GB

State (i.e. country) of residence:

GB

This person is applicant  all designated  all designated States except  the United States of America only  the States indicated in the Supplemental Box for the purposes of:

 Further applicants and/or (further) inventors are indicated on a continuation sheet.**Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country).

PIKE, Christopher Gerard  
Pike & Co.,  
Hayes Loft, 68A Hayes Place  
Marlow, Buckinghamshire  
SL7 2BT, GB

Telephone No.: 01628-471869

Facsimile No.: 01628-471878

Teleprinter No.:

Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

## Continuation of Box No. III FURTHER APPLICANTS AND/OR (FURTHER) INVENTORS

If none of the following sub-boxes is used, this sheet is not to be included in the request.

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

DAVIES, Michael Birsha  
Glaxo Group Ltd.  
Park Road  
Ware, Herts.  
SG12 ODP  
GB

This person is:

applicant only  
 applicant and inventor  
 inventor only (If this check-box is marked, do not fill in below.)

State (i.e. country) of nationality:

GB

State (i.e. country) of residence:

GB

This person is applicant  all designated States  all designated States except the United States of America  the United States of America only  the States indicated in the Supplemental Box for the purposes of:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

GODFREY, James William  
Glaxo Group Ltd.  
Park Road  
Ware, Herts.  
SG12 ODP  
GB

This person is:

applicant only  
 applicant and inventor  
 inventor only (If this check-box is marked, do not fill in below.)

State (i.e. country) of nationality:

GB

State (i.e. country) of residence:

GB

This person is applicant  all designated States  all designated States except the United States of America  the United States of America only  the States indicated in the Supplemental Box for the purposes of:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

HAGLUND, Sylvia Maria  
19 Northampton Road  
Oxford  
Oxfordshire  
OX1 4TG  
GB

This person is:

applicant only  
 applicant and inventor  
 inventor only (If this check-box is marked, do not fill in below.)

State (i.e. country) of nationality:

GB

State (i.e. country) of residence:

GB

This person is applicant  all designated States  all designated States except the United States of America  the United States of America only  the States indicated in the Supplemental Box for the purposes of:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

RAND, Paul Kenneth  
Glaxo Group Ltd.  
Park Road  
Ware, Herts.  
SG12 ODP  
GB

This person is:

applicant only  
 applicant and inventor  
 inventor only (If this check-box is marked, do not fill in below.)

State (i.e. country) of nationality:

GB

State (i.e. country) of residence:

GB

This person is applicant  all designated States  all designated States except the United States of America  the United States of America only  the States indicated in the Supplemental Box for the purposes of:

## Box No. V DESIGNATION OF STATES

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

## Regional Patent

AP ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT

EA Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT

EP European Patent: AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT

OA OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line) .....

## National Patent (if other kind of protection or treatment desired, specify on dotted line):

<input checked="" type="checkbox"/> AE United Arab Emirates	<input checked="" type="checkbox"/> LR Liberia
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<input checked="" type="checkbox"/> AU Australia	<input checked="" type="checkbox"/> LV Latvia
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<input checked="" type="checkbox"/> GE Georgia	<input checked="" type="checkbox"/> TM Turkmenistan
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<input checked="" type="checkbox"/> KG Kyrgyzstan	<input checked="" type="checkbox"/> ZW Zimbabwe
<input checked="" type="checkbox"/> KP Democratic People's Republic of Korea	Check-boxes reserved for designating States which have become party to the PCT after issuance of this sheet:
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<input checked="" type="checkbox"/> KZ Kazakhstan	<input checked="" type="checkbox"/> Algeria
<input checked="" type="checkbox"/> LC Saint Lucia	
<input checked="" type="checkbox"/> LK Sri Lanka	

**Precautionary Designation Statement:** In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

## Sheet No 4

<b>Box No. VI PRIORITY CLAIM</b>		<input type="checkbox"/> Further priority claims are indicated in the Supplemental Box Where earlier application is		
Filing Date of Earlier Application (day/month/year)	Number of earlier application	national application: country	regional application: regional Office	international application: receiving Office
item (1) (24.04.99) 24 April 1999	9909357.7	GB		
item (2)				

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s):  
\* Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed (Rue 4.10(b)(ii)). See Supplemental Box.

**Box No. VII INTERNATIONAL SEARCHING AUTHORITY**

Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used): ISA/	Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority): Date (day/month/year)      Number      Country (or regional office)
--	--

**Box. VIII CHECK LIST; LANGUAGE OF FILING**

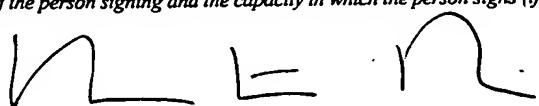
This international application contains the following number of sheets: request : 4 description (excluding sequence listing part) : 15  claims : [9] <sup>18</sup> abstract : 1 drawings : 7 sequence listing part of description : Total number of sheets : [36] <sup>35</sup>	This international application is accompanied by the item(s) marked below: 1. <input checked="" type="checkbox"/> fee calculation sheet 2. <input checked="" type="checkbox"/> separate signed power of attorney (2) 3. <input checked="" type="checkbox"/> copy of general power of attorney; reference number, if any: 4. <input type="checkbox"/> statement explaining lack of signature 5. <input checked="" type="checkbox"/> priority document (1) identified in Box No. VI as item(s): 1 6. <input type="checkbox"/> translation of international application into (language): 7. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material 8. <input type="checkbox"/> nucleotide and/or amino acid sequence listing in computer readable form 9. <input type="checkbox"/> other (specify):
--	---

Figure of the drawings which should accompany the abstract: None	Language of filing of the international application: English
---	---

**Box No. IX SIGNATURE OF APPLICANT OR AGENT**

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

Christopher Gerard Pike  
Agent for the Applicants



For receiving Office use only		
1. Date of actual receipt of the purported international application	19 APR 2000 (19.04.00)	2. Drawings
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:		<input checked="" type="checkbox"/> received: <input type="checkbox"/> not received:
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority specified by the applicant: ISA/	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid	

Date of receipt of the record copy by the International Bureau	For International Bureau use only	

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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GRANDE BRETAGNE

ACTION DATE	11 JUN 2001	INT'L JAS WAK GMI
		NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

Date of mailing  
(day/month/year) 05.06.2001

Applicant's or agent's file reference  
PG3694/PCT

## IMPORTANT NOTIFICATION

International application No. PCT/EP00/03518	International filing date (day/month/year) 19/04/2000	Priority date (day/month/year) 24/04/1999
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Applicant  
GLAXO GROUP LIMITED et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

#### 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

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## PATENT COOPERATION TREATY

## PCT

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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference PG3694/PCT	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP00/03518	International filing date (day/month/year) 19/04/2000	Priority date (day/month/year) 24/04/1999
International Patent Classification (IPC) or national classification and IPC B65D75/20		
Applicant GLAXO GROUP LIMITED et al.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 13 sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input checked="" type="checkbox"/> Certain defects in the international application</li> <li>VIII <input checked="" type="checkbox"/> Certain observations on the international application</li> </ul>		

Date of submission of the demand 30/10/2000	Date of completion of this report 05.06.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Felgenhauer, H-P  Telephone No. +49 89 2399 2618



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/03518

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, pages:**

1,3,6-10	as originally filed	
2,4,5	with telefax of	18/04/2001

**Claims, No.:**

10-20,30 (part), 31-82	as received on	30/10/2000	with letter of	25/10/2000
1-9,21-29,30 (part), 83-86	with telefax of	18/04/2001		

**Drawings, sheets:**

1/7-7/7	as originally filed
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2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP00/03518

listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description,      pages:
- the claims,      Nos.:
- the drawings,      sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- the entire international application.
- claims Nos. 84,85.

because:

the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 84,85 are so unclear that no meaningful opinion could be formed (*specify*):  
**see separate sheet**

the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

no international search report has been established for the said claims Nos. .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

the written form has not been furnished or does not comply with the standard.

the computer readable form has not been furnished or does not comply with the standard.

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N) Yes: Claims 1-83,86  
No: Claims

Inventive step (IS) Yes: Claims 1-83,86  
No: Claims

Industrial applicability (IA) Yes: Claims 1-83,86  
No: Claims

**2. Citations and explanations  
see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:  
**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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**Item III**

1. Claims 84, 85 contain a reference to the drawings. According to Rule 6.2(a) PCT, claims should not contain such a reference except where is absolutely necessary. Such is not, however, the case here.

**Item V**

1. The following documents are referred to  
D1...FR-A-850 597  
D2...US-A-3 698 549  
D3...EP-A-0 101 298  
D4...US-A-5 590 645.
2. The claims are unclear (Article 6 PCT) as indicated in Item VIII.
3. According to each of the documents D1 - D3 a carrier of the kind concerned comprises a retainer formed as a space between the first and the second portion and thus as a part of the first and the second portion; cf. D1: figures 5, 7; D2: figures 1 - 4 and D3: figures 1 - 3.
4. The subject-matter of a claim 1 clarified as indicated in item VIII is novel and not suggested by the available prior art (Article 33 (2) and (3) EPC), which does not lead towards provision of a retainer in the first portion of the sheet and formation of a cover by the second portion in order to solve the problem (page 2, paragraph 4). Thus claim 1 satisfies the requirements of Article 33 (2) and (3) PCT.

This applies correspondingly with regard to a claims 24 (inhalation device), 29 (method) clarified as indicated in item VIII, claim 34 (use) as well as the dependent claims.

**Item VII**

- 1.1 Each independent claim should have been properly cast in the two-part form (6.3 (b) PCT), starting e.g. from D1.

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- 1.2 Reference signs in parentheses should have been inserted in the claims to increase their intelligibility, Rule 6.2(b) PCT. This applies to both the preamble and characterising portion.
- 1.3 To meet the requirements of Rule 5.1(a)(ii) PCT, the documents D1 - D4, D4 concerning claims 24 - 28, should have been identified in the description and the relevant background art disclosed therein should be briefly discussed.

**Item VIII**

1. Claim 1 is unclear (Article 6 PCT) for the following reasons.
  - 1.1 The feature: "said retainer comprising a pocket or hole therein" does not clearly define the structure or shape of the retainer since neither the structure / shape of the pocket or of the hole is defined.

Concerning the first alternative (pocket) cf. e.g. page 10, lines 11 - 13, concerning the second alternative (hole) cf. e.g. page 10, lines 27-29. Additionally it needs to be recognised that a hole as such cannot be considered as being sufficient to form a retainer.

Claim 29 is unclear for corresponding reasons.

- 1.2 The feature of claim 1 according to which the carrier comprises "a fold in said second portion ..." is unclear e.g. in view of claim 29: "folding a second portion ..."; page 10, lines 13 - 15 and the drawings (cf. e.g. figure 1a), according to which the fold is not in the second portion but links the first and the second portion.
2. Claim 24 is unclear since the "combination" referred to is neither defined in structural nor in functional terms. Consequently claim 24 does not comprise a feature clearly defining the structure of an inhalation device or a part thereof cooperating with a carrier as referred to. In this connection the additional feature of claim 25 appears as being essential for the inhalation device.

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which are separately attached to films used to seal the medicament retainers. The present invention in embodiments provides advantages over such packs in that it is especially useful for the elderly and infirm since the free end of the strip is readily identifiable and simple to grasp, without the added complication of numerous cords or tapes which act as a separate release mechanism.

5 It will also be seen that in several embodiments of the present invention the free end of the sheet or strip is peeled back automatically by virtue of a releasing means incorporated into the inhalation device, hence avoiding the need to grasp the strip manually. Such a feature further enhances the ease of use of the 10 inhalation device since minimum force is required by the user to peel back the medicament retainer.

15 It is also an object of the present invention to provide a medicament carrier for use in combination with an inhalation device, wherein the design of the inhalation device has the potential, if desired, to handle a medicament carrier having a large number of discrete unit doses without the device becoming unacceptably large. Thus, although a single use inhaler is referred to in the drawings/illustrations, it is possible that such an inhaler may be easily adapted to 20 accommodate a multi-dose medicament container.

It is a further object of the present invention to provide a carrier for a wide range of different product types, comprising a single sheet or elongate strip, which is easy to use and of low manufacturing cost.

25 *said retainer comprising a pocket or a hole therein*

According to one aspect of the present invention there is provided a carrier comprising a sheet having a first portion and a second portion; a retainer in the first portion for containment of product; a fold in the second portion such that the second portion is foldable towards the retainer to form a cover therefor; and a 30 join between the cover and the retainer.

Preferably the sheet comprises an elongate strip. More preferably the ~~retainer~~ ~~comprises a pocket or a hole, additionally comprises a seal applied therefo~~.

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In one aspect, the sheet or elongate strip has a point of weakness between each carrier in the series arrangement, thereby enabling separation of individual carriers from the sheet or elongate strip.

5

Preferably, the sheet or elongate strip is flexible to enable it to be formed for example, into a spiral, helical or zig-zag shape for incorporation into a suitable device, such as an inhalation device. More preferably, the sheet or elongate strip comprises material selected from the group consisting of metal foil, an organic polymeric material and paper. Most preferably, the carrier comprises a laminate.

10

Preferably, the join is formable by a joining method selected from the group consisting of heat, laser, radio frequency, adhesive, staple, stamp, pressure and ultrasonic sealing.

15

Preferably, the join is peelable to enable peelable access to the retainer.

Preferably, the retainer is shaped for receipt by a holder.

20

In a further aspect, there is provided a carrier comprising a medicament therein. Preferably the medicament is in dry powder, tablet, liquid, paste, cream or capsular form. More preferably the medicament is selected from the group consisting of albuterol, salmeterol, ipratropium bromide, fluticasone propionate and beclomethasone dipropionate and salts or solvates thereof and any mixtures thereof.

25

30

According to another aspect of the present invention, there is provided an inhalation device comprising a housing in combination with a medicament carrier as described above. Preferably the housing includes a holder for receipt of the retainer of the carrier. More preferably the inhalation comprises a pull release tab and the pull release tab protrudes from the housing.

Preferably, the retainer consists of a pocket or hole.

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Preferably the inhalation device comprises a release mechanism and the pull release tab connects to the release mechanism. More preferably, the release mechanism is separable from the housing of the inhalation device.

5 , comprising a pocket or hole therein,  
According to another aspect of the present invention, there is provided a method of making a carrier comprising forming a retainer in a first portion of a sheet or elongate strip; filling the retainer with product; folding a second portion of the sheet or elongate strip towards the retainer to form a cover therefor; and forming a join between the cover and the retainer.

10 In one aspect, there is provided a method comprising forming a plurality of retainers in a portion of a sheet or elongate strip; filling the plurality of retainers with product; folding a second portion of the sheet or elongate strip towards the plurality of retainers to form a cover therefor; and forming a join between the cover and the plurality of retainers.

15 In an other aspect, there is provided a method of making a carrier as described above additionally comprising a fold in the first portion such that the first portion is foldable towards the retainer to form a base therefor; and a join between the base and the retainer.

20 Preferably there is provided a method of making a carrier in multi-unit form comprising successive iterations of the method described above to form a series arrangement of a plurality of carriers.

25 According to another aspect of the present invention, there is provided a method of opening a carrier as described above comprising pulling the pull release tab in order to enable access to the retainer.

30 In a further aspect of the present invention, there is provided the use of a carrier, as described above, for dispensing medicament.

In a preferred aspect, the medicament is used in the treatment of respiratory disorders. More preferably the medicament is used in the treatment of asthma.

35 Most preferably the medicament is salbutamol or albuterol.

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## Claims

, said retainer comprising a pocket or a hole therein

1. A carrier comprising a sheet having a first portion and a second portion; a retainer in said first portion for containment of product; a fold in said second portion such that the second portion is foldable towards ~~said~~ retainer to form a cover therefor; and a join between said cover and the retainer.
2. A carrier according to claim 1, wherein said sheet comprises an elongate strip.
3. A carrier according to either of claims 1 or 2, wherein said ~~retainer~~ comprises a pocket or a hole, additionally comprises a seal applied thereto.
4. A carrier according to any of claims 1 to 3 comprising a plurality of retainers in the first portion, wherein the second portion is foldable towards said plurality of retainers to form a cover therefor; and a join between said cover and the plurality of retainers.
5. A carrier according to any of claims 1 to 3, additionally comprising a fold in said first portion such that the first portion is foldable towards the retainer to form a base therefor; and a join between said base and the retainer.
6. A carrier according to any of claims 1 to 5, additionally comprising an inert support within the retainer for bearing product thereon.
7. A carrier according to any of claims 1 to 6, comprising a second fold in the second portion to form a pull release tab.
8. A carrier according to claim 7, wherein said pull release tab is shaped for ease of grip.
9. A carrier according to either of claims 7 or 8, wherein the pull release tab has a looped end.

10. A carrier according to any of claims 7 to 10, wherein said pull release tab has at least one perforation therein.
11. A carrier in multi-unit form comprising a series arrangement of a plurality of carriers according to any of claims 1 to 10.  
5
12. A carrier according to claim 11, wherein each of said plurality of carriers is connected together.
- 10 13. A carrier according to claim 12, wherein each of the plurality of carriers is formable from the same sheet or elongate strip.
14. A carrier according to claim 13, wherein said sheet or elongate strip has a point of weakness between each carrier in said series arrangement.  
15
15. A carrier according to any claims 1 to 14, wherein the sheet or elongate strip is flexible.
- 20 16. A carrier according to any of claims 1 to 15, wherein the sheet or elongate strip comprises material selected from the group consisting of metal foil, an organic polymeric material and paper.
17. A carrier according to claim 16, wherein the carrier comprises a laminate.  
25
18. A carrier according to any one of claims 1 to 17, wherein the join is formable by a joining method selected from the group consisting of heat, laser, radio frequency, adhesive, staple, stamp, pressure and ultrasonic sealing.
- 30 19. A carrier according to any one of claims 1 to 18, wherein the join is peelable to enable peelable access to the retainer.
20. A carrier according to any one of claims 1 to 19, wherein the retainer is shaped for receipt by a holder.  
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21. A carrier according to any one of claims 1 to 20, comprising a medicament therein.

22. A carrier according to claim 21, wherein said medicament is in dry powder, tablet, liquid, paste, cream or capsular form.

23. A carrier according to either of claims 21 or 22, wherein the medicament is selected from the group consisting of albuterol, salmeterol, ipratropium bromide, fluticasone propionate and beclomethasone dipropionate and salts or solvates thereof and any mixtures thereof.

24. An inhalation device comprising a housing in combination with a carrier as claimed in any of claims 21 to 23.

25. An inhalation device according to claim 24, wherein said housing includes a holder for receipt of the retainer of the carrier.

26. An inhalation device according to either of claims 24 or 25, wherein the carrier comprises a pull release tab and the pull release tab protrudes from the housing.

27. An inhalation device according to claim 26, wherein the inhalation device comprises a release mechanism and the pull release tab connects to the release mechanism.

28. An inhalation device according to claim 27, wherein said release mechanism is separable from the housing.

29. A method of making a carrier comprising forming a retainer in a first portion of a sheet or elongate strip; filling said retainer with product; folding a second portion of said sheet or elongate strip towards the retainer to form a cover therefor; and forming a join between said cover and the retainer.

30. A method according to claim 29 comprising forming a plurality of retainers in a said portion of said sheet or elongate strip; filling said plurality of

*, comprising a pocket or hole therein,*

retainers with product; folding a second portion of the sheet or elongate strip towards the plurality of retainers to form a cover therefor; and forming a join between said cover and the plurality of retainers.

5 31. A method of making a carrier according to claim 29, additionally comprising a fold in said first portion such that the first portion is foldable towards the retainer to form a base therefor; and a join between said base and the retainer.

10 32. A method of making a carrier in multi-unit form comprising successive iterations of the method according to any of claims 29 to 31 to form a series arrangement of a plurality of carriers.

15 33. A method of opening a carrier as claimed in any of claims 7 to 23 comprising pulling the pull release tab in order to enable access to the retainer.

34. Use of a carrier, according to any of claims 21 to 23 for dispensing medicament.

20 35. Use of a carrier according to claim 34, wherein said medicament is used in the treatment of respiratory disorders.

36. Use of a carrier according to claim 35, wherein the medicament is used in the treatment of asthma.

25 37. Use of a carrier according to claim 36, wherein said medicament is salbutamol or albuterol.

30 38. A carrier according to any of claims 1 to 20, comprising an electronic component therein.

39. A carrier according to claim 38, wherein said electronic component is selected from the group consisting of semi-conductor, integrated circuit chip, fuse and battery.

40. A carrier according to any of claims 1 to 20, comprising a food therein.

41. A carrier according to claim 40, wherein said food is selected from the group consisting of meat, mycoprotein, milk, cheese, flour, pasta, rice, oil, sugar, 5 confectionery, vegetable, herbal, snack, convenience and fruit foodstuffs.

42. A carrier according to any of claims 1 to 20, comprising a beverage therein.

10 43. A carrier according to claim 42, wherein said beverage is selected from the group consisting of water, milk, coffee, cocoa, tea, fruit, carbonated and alcoholic drinks.

15 44. A carrier according to any of claims 1 to 20, comprising a toiletry therein.

45. A carrier according to claim 44, wherein said toiletry is selected from the group consisting of toothpaste, soap, mouthwash, shampoo, skin and face cream.

20 46. A carrier according to any of claims 1 to 20, comprising a cleanser therein.

25 47. A carrier according to claim 46, wherein said cleanser is selected from the group consisting of soap, detergent, enzymic preparation and organic solvent.

48. A carrier according any of claims 1 to 20, comprising a disinfectant therein.

30 49. A carrier according to claim 48, wherein said disinfectant is selected from the group consisting of sterilant, antiseptic and bleach.

35 50. A carrier according to any of claims 1 to 20, comprising a light-sensitive material therein.

51. A carrier according to claim 50, wherein said light-sensitive material comprises a photographic film.

5 52. A carrier according to any of claims 1 to 20, comprising a marking material therein.

53. A carrier according to claim 52, wherein said marking material is selected from the group consisting of toner, ink, dye, pigment, acid and alkali.

10 54. A carrier according to any of claims 1 to 20, comprising a covering material therein.

55. A carrier according to claim 54, wherein said covering material is selected from the group consisting of paint, pigment, dye, corrosion inhibitor, electrical conductor, electrical insulator and static inhibitor.

15 56. A carrier according to any of claims 1 to 20, comprising a toy therein.

20 57. A carrier according to claim 56, wherein said toy is selected from the group consisting of model, figure, doll, animal, jigsaw and game.

58. A carrier according to any of claims 1 to 20, comprising haberdashery therein.

25 59. A carrier according to claim 58, wherein said haberdashery is selected from the group consisting of button, bobbin, needle, pin, eye, hook and fastener.

60. A carrier according to any of claims 1 to 20, comprising a tool therein.

30 61. A carrier according to claim 60, wherein said tool comprises a domestic tool.

62. A carrier according to claim 61, wherein said domestic tool is selected from the group consisting of can opener, bottle opener, ring-pull opener, scissors, knife, fork and spoon.

5 63. A carrier according to claim 60, wherein the tool comprises a home maintenance tool.

64. A carrier according to claim 63, wherein said home maintenance tool is selected from the group consisting of nail, screw, pin, wire, screwdriver, knife, 10 brush, spanner, ruler and marker.

65. A carrier according to any of claims 1 to 20, comprising stationery therein.

15 66. A carrier according to claim 65, wherein said stationery is selected from the group consisting of pencil, pen, ruler, crayon, eraser, marker, stencil, protractor, compass and paper.

20 67. A carrier according to any of claims 1 to 20, comprising an adhesive therein.

68. A carrier according to claim 67, wherein said adhesive bonds materials selected from the group consisting of paper, plastic, wood, rubber, glass and metal.

25 69. A carrier according to any of claims 1 to 20, comprising an agrochemical therein.

70. A carrier according to claim 69, wherein said agrochemical is selected 30 from the group consisting of herbicide, insecticide, fungicide, rodentocide, nematocide, acaricide and plant growth regulator.

71. A carrier according to any of claims 1 to 20, comprising a plant seed therein.

72. A carrier according to claim 71, wherein said seed is derived from plants selected from the group consisting of monocotyledonous and dicotyledonous plants.

5 73. A carrier according to any of claims 1 to 20, comprising a contraceptive therein.

74. A carrier according to claim 73, wherein said contraceptive is either a contraceptive device or a contraceptive drug.

10 75. A carrier according to claim 74, wherein said contraceptive device is selected from the group consisting of condom, diaphragm, sponge and coil.

15 76. A carrier according to claim 74, wherein said contraceptive drug is selected from the group consisting of spermicide, estrogen, ethinyl estradiol, progesterone, levonorgestrel and norgestrel.

77. A carrier according to any of claims 1 to 20, comprising a medical instrument therein.

20 78. A carrier according to claim 77, wherein said medical instrument is selected from the group consisting of scalpel, thermometer and syringe.

25 79. A carrier according to any of claims 1 to 20, comprising laboratory equipment therein.

80. A carrier according to claim 79, wherein said equipment is selected from the group consisting of dispenser tip, microbial filter, filter paper, aseptic container, petri-plate, vial, test tube, tissue-culture vessel and pipette.

30 81. A carrier according to any of claims 1 to 20, comprising a catemenial product therein.

35 82. A carrier according to claim 81, wherein said catemenial product comprises a tampon.

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83. A carrier according to any of claims 1 to 20, comprising nicotine therein.

5 84. A carrier as substantially herein described with reference to the accompanying drawings.

85. An inhalation device as substantially herein described with reference to the accompanying drawings.

10

86. A carrier according to any of claims 1 to 23, wherein the retainer consists of a pocket or hole.

15